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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
|-----------------|-------------|----------------------|---------------------|
| 08/435,677 | 05/05/95 | KNIGHT | H 04860.P1638 |

LM21/0102

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EXAMINER

KRICK, R

ART UNIT

2782

PAPER NUMBER

8

DATE MAILED: 01/02/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

08/435,677

Applicant(s)

KNIGHT et al

Examiner

Rehana Perveen

Group Art Unit

2317

☒ Responsive to communication(s) filed on Oct 6, 1997

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-21 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1, 2, 9-14, and 16-21 is/are rejected.

☒ Claim(s) 3-8 and 15 is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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Response to Amendment

1. Applicant's Request for Reconsideration filed on 09 October 1997 has been received and considered. The following rejections now apply.
2. Claims 1, 2, 9-14, and 16-21 are rejected under 35 U.S.C. § 103 as being unpatentable over applicant's admission of prior art, in view of Taylor et al, patent no. 5,537,466, further in view of Bennett et al, patent no. 4,908,859.
3. Taylor et al were cited as prior art in the previous office action.
4. Claims 3-8 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. As to claim 1, applicant admits to a bus, at least one memory coupled to the bus for storing data and programming instructions that comprise applications and an operating

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system, and a processing unit coupled to the bus and running the operating system and applications by executing programming instructions [applicants' disclosure, pages 1-2].

6. However, applicant does not admit to an application having a first plurality of tailored distinct programming interfaces available to access a plurality of separate sets of I/O services provided through the operating system.
7. Taylor et al teach an application having a first plurality of distinct programming interfaces available to access a plurality of separate sets of I/O services provided through the operating system [col. 4 lines 18-28 and col. 5 lines 6-27]. As also indicated by the applicants, Taylor et al teach multiple instances of application programming interfaces, each of which is a version/instance of the complete API. Taylor et al do not **explicitly** teach a plurality of tailored distinct programming interfaces.
8. Bennett et al teach a plurality of tailored separate interface channels for carrying different types of services

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containing different combinations of the service components [col. 1 lines 22-44 and col. 2 lines 63-68].

9. It would have been obvious for one of ordinary skill in the art at the time of the invention to combine teachings of Taylor et al, Bennett et al, and applicant's knowledge to prior art because Taylor et al's application program interface arrangement would have increased efficiency and provided improved architecture of existing prior art systems, and Bennett et al's tailored separate interfaces for different types of services would have accommodated common set of services to be handled by distinct interfaces thus taking advantage of similar characteristics when handling service requests.

10. As to claim 2, Bennett et al teach each of the first plurality of tailored distinct programming interfaces are tailored to a type of I/O service provided by each set of I/O services [abstract].

11. As to claim 9, in addition to the limitations stated in claim 1, Bennett et al further teach each tailored distinct

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program structure comprising a first programming interface for receiving service requests for a set of I/O services of a first type, a first server coupled to receive service requests and to dispatch service requests to the I/O services, an activation model to define an operating environment in which a server request is to be serviced by the set of I/O services [col. 2 line 30 - col. 3 line 22], and at least one specific instance of the set of I/O services that operate within the activation model [col. 3 lines 49-54].

12. As to claims 10 and 11, Taylor et al teach the first programming interface is responsive to request from applications and from other program structures, and the first programming interface comprises at least one library for converting functions into messages [col. 3 lines 4-21 and col. 5 lines 1-65].

13. As to claim 12, Taylor et al teach the first server receives a message corresponding to a service request from the first programming interface, maps the message into a

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function called by the client, and then calls the function [col. 6 lines 26-44].

14. As to claims 13 and 14, Taylor et al teach the message comprises a kernel message, and wherein one of the at least one specific instance comprises a service that accesses another program structure [col. 4 line 30 - col. 5 line 27].
15. As to claims 16-18, Bennett et al teach two or more I/O services share code or data (basic service type, col. 4 lines 51-55), the two or more I/O services are of different types (variants in characteristics, col. 4 lines 51-55), and the program structure further comprises a storage mechanism to maintain identification of available services to which access is provided via the first server (service definition table, col. 2 lines 56-62 and col. 3 lines 9-14).
16. Claims 19-21 are the corresponding method claims of claims 9-10, and therefore, are rejected under the same rationale.

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17. Applicant's arguments with respect to claims 1, 2, 9-14, and 16-21 have been considered but are deemed to be moot in view of the new grounds of rejection.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
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or faxed to:

(703) 308-9051, (for formal communications
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Or:

(703) 308-5359 (for informal or draft
communications, please label "PROPOSED" or
"DRAFT")


Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).


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18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rehana Perveen, whose telephone number is (703) 305-8476. The examiner can normally be reached Monday through Friday from 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee, can be reached at (703) 305-9717. The fax phone number for this Group is (703) 308-5359.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.


Rehana Perveen
December 12, 1997


THOMAS C. LEE
SUPERVISORY PATENT EXAMINER
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